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## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8

999 18<sup>TH</sup> STREET - SUITE 500

DENVER, CO 80202-2466

<http://www.epa.gov/region08>

Ref: 8EPR-SR

May 9, 2002

Ms. Jennifer West  
Family Star Montessori School  
1331 East 33<sup>rd</sup> Avenue  
Denver, CO 80209

Dear Ms. West:

Enclosed please find the letters that contain results of soil sampling done by the Environmental Protection Agency at the Family Star Montessori School. If you have any questions, please feel free to call me at (303) 312-6579. I look forward to working with you on sampling the garden area at the school to address the concerns of a parent of one of your students.

Sincerely,

Bonnie Lavelle  
Remedial Project Manager

enclosure





**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION 8  
999 18<sup>TH</sup> STREET - SUITE 500  
DENVER, CO 80202-2488  
<http://www.epa.gov/region08>**

Ref: 8EPR-SR

March 27, 2000

Ms. Nancy Willis  
Family Star Montessori School  
2246 Federal Boulevard  
Denver, CO 80211

**RE: Soil Sampling at Family Star Montessori School**

Dear Ms. Willis:

I am pleased to tell you that EPA has completed the testing of the soil samples collected from the Family Star Montessori School at 1331 East 33<sup>rd</sup> Avenue, Denver. The soil was tested for arsenic and lead as part of the Vasquez Boulevard/Interstate 70 Superfund Site investigation. We analyzed 90 samples from the property, 30 each from the school yard, the playground, and the vacant lot. The results are reported in parts of arsenic and lead per million parts of soil. Your results are shown in the tables attached to this letter. Maps showing the location of each sample are also attached.

EPA looks at these results to determine whether a cleanup of the soil in the school property is needed. If the results indicate levels greater than 400 arsenic and/or 2,000 lead, the soil will need to be cleaned up.

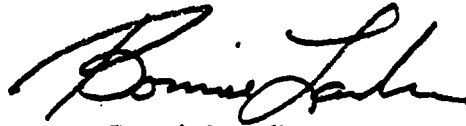
**Your results show that we did not detect arsenic in most samples. Our limit of detection is 11 parts per million. Only 13 samples contained detectable amounts of arsenic in the school yard and playground and these values are only slightly above the detection limit (maximum value was 19). The level of lead is not of concern. Clean up action is not required at the school yard or at the playground. This means that the property is not considered to be part of the Vasquez Boulevard, I-70 Superfund Site.**

**We detected arsenic in one sample on the vacant lot property at a level above 400, indicating that *some* clean up action is required. EPA is planning to begin clean up activities in May, 2000. We will be contacting you soon with details. If you are concerned, there are things you can do to reduce contact with soil. The enclosed fact sheet describes them. Keeping children away from the soil in the small area where the elevated level of arsenic was detected would be prudent until the clean up work is completed.**



Please share these results with the parents of children who attend your school. If you have any questions, please feel free to call me at (303) 312-6579. Thank you for your cooperation in EPA's study.

Sincerely,

A handwritten signature in black ink, appearing to read "Bonnie Lavelle". The signature is fluid and cursive, with the first name "Bonnie" and last name "Lavelle" clearly distinguishable.

Bonnie Lavelle  
Remedial Project Manager

attachments

**Metals Concentration in Grab Samples Collected at Family Star Montessori Vacant Lot**

Parameter	Detection Frequency	Average (ppm)	Max (ppm)	Min (ppm)
Arsenic	14/30	67	1517	11
Lead	30/30	310	1811	88

**Grab Sample Results**

Sample ID	Arsenic (ppm)	Lead (ppm)
3-06091-B *	77	402
3-06092-B	14	307
3-06093-B	11	111
3-06094-B	14	400
3-06095-B	11	298
3-06096-B	23	255
3-06097-B	11	128
3-06098-B	15	219
3-06099-B	11	282
3-06100-B	11	218
3-06101-B	11	182
3-06102-B	19	415
3-06103-B	11	271
3-06104-B	11	282
3-06105-B	11	258
3-06106-B	22	125
3-06107-B	11	146
3-06108-B	11	174
3-06109-B	11	227
3-06110-B	11	88
3-06111-B	19	253
3-06112-B	13	288
3-06113-B	48	1811
3-06114-B	11	309
3-06115-B *	1517	404
3-06116-B	11	122
3-06117-B	12	235
3-06118-B	17	517
3-06119-B	20	437
3-06120-B	11	129

\* Sample concentration confirmed by reanalysis; see attached page for reanalysis results

# REANALYSIS OF 2 SOILSAMPLES FROM SCHOOLS & PARKS PROGRAM

Day Anal	Time Anal	Sample ID	Parent Sample	Asphalt (ppm)	Lead (ppm)
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2/7/00	1455	3-06422-B	3-06115-B	996	348
2/7/00	1455	3-06427-B	3-06115-B	976	317
2/7/00	1455	3-06423-B	3-06115-B	962	314

MEAN	978	326
STD. DEV.	17.0	19.0
%RSD	2.0	6.0

Day Anal	Time Anal	Sample ID	Parent Sample	Asphalt (ppm)	Lead (ppm)
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2/7/00	1455	3-06426-B	3-06091-B	108	510
2/7/00	1455	3-06425-B	3-06091-B	111	512
2/7/00	1455	3-06430-B	3-06091-B	124	518

MEAN	114	513
STD. DEV.	8.0	4.0
%RSD	7.0	1.0

**Metals Concentration in Grab Samples Collected at Family Star Montessori Playground**

Parameter	Detection Frequency	Average (ppm)	Max (ppm)	Min (ppm)
Arsenic	6/30	11	18	11
Lead	30/30	223	567	61

**Grab Sample Results**

Sample ID	Arsenic (ppm)	Lead (ppm)
3-06061-B	11	410
3-06062-B	11	525
3-06063-B	11	239
3-06064-B	12	234
3-06065-B	11	135
3-06066-B	11	567
3-06067-B	11	108
3-06068-B	11	256
3-06069-B	11	451
3-06070-B	11	427
3-06071-B	11	136
3-06072-B	18	155
3-06073-B	11	129
3-06074-B	11	324
3-06075-B	11	119
3-06076-B	11	529
3-06077-B	11	170
3-06078-B	11	207
3-06079-B	13	165
3-06080-B	11	102
3-06081-B	11	141
3-06082-B	13	165
3-06083-B	11	98
3-06084-B	11	61
3-06085-B	11	153
3-06086-B	11	118
3-06087-B	14	147
3-06088-B	11	99
3-06089-B	11	137
3-06090-B	11	173

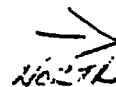
**Metals Concentration in Grab Samples Collected at Family Star Montessori Schoolyard**

Parameter	Detection Frequency	Average (ppm)	Max (ppm)	Min (ppm)
Arsenic	7/30	12	19	11
Lead	30/30	235	359	127

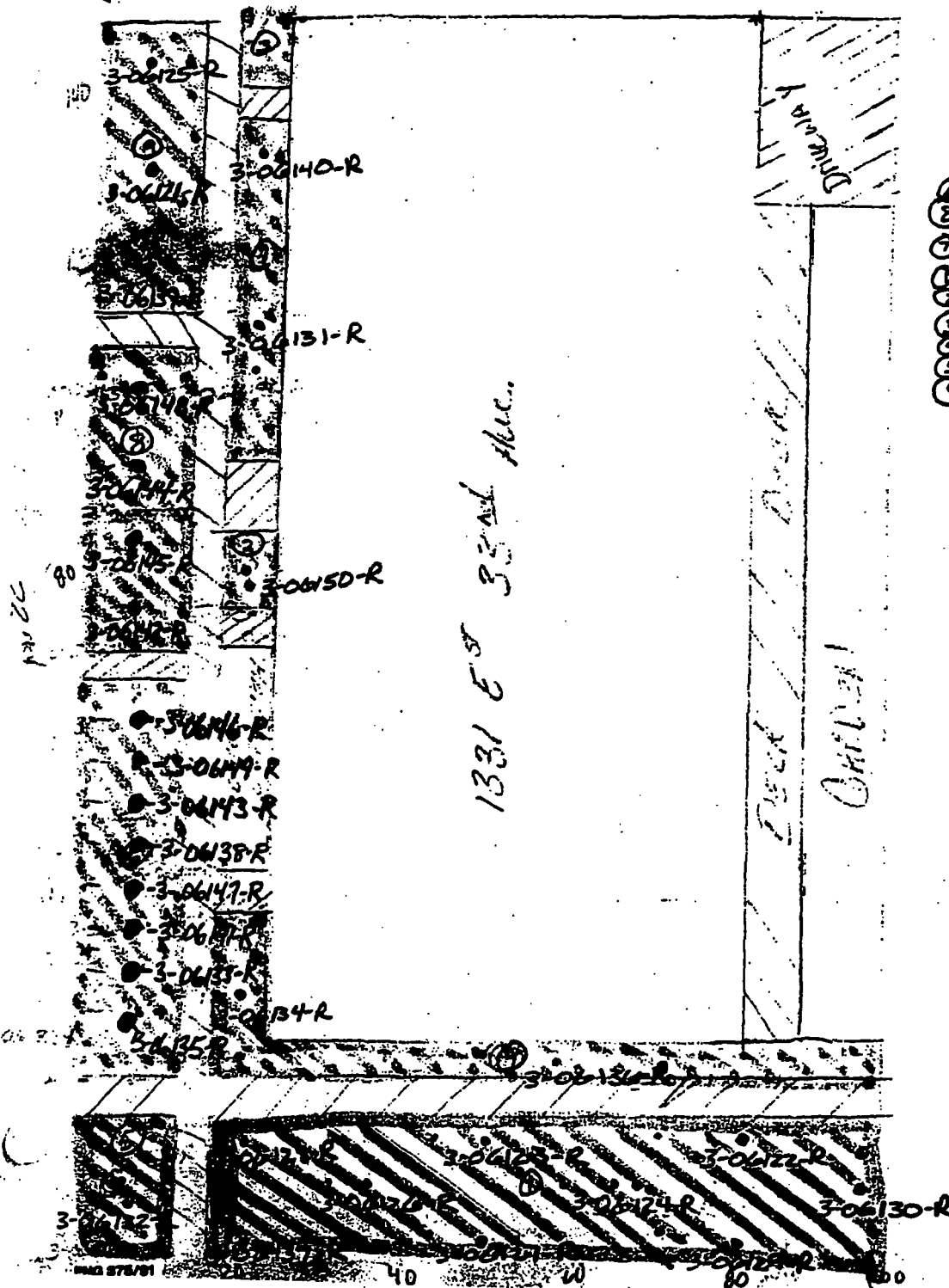
**Grab Sample Results**

Sample ID	Arsenic (ppm)	Lead (ppm)
3-06121-B	11	179
3-06122-B	11	157
3-06123-B	11	188
3-06124-B	11	185
3-06125-B	11	202
3-06126-B	11	226
3-06127-B	11	359
3-06128-B	11	257
3-06129-B	11	208
3-06130-B	11	127
3-06131-B	12	136
3-06132-B	11	223
3-06133-B	11	152
3-06134-B	11	216
3-06135-B	11	184
3-06136-B	11	204
3-06137-B	17	347
3-06138-B	11	285
3-06139-B	11	329
3-06140-B	11	331
3-06141-B	11	306
3-06142-B	13	236
3-06143-B	11	296
3-06144-B	11	190
3-06145-B	17	335
3-06146-B	13	283
3-06147-B	11	195
3-06148-B	19	251
3-06149-B	11	230
3-06150-B	11	220

Project UBI 70 Contract No. 4774 Sheet \_\_\_\_\_  
 Feature Family Star Montessori Designed VA File No. \_\_\_\_\_  
 Item \_\_\_\_\_ Checked \_\_\_\_\_ Date 11/3/99



← ← ALLEY → →



1050	=	8
675	=	4
224	=	2
1200	=	9
50	=	1
50	=	1
200	=	2
100	=	1
390	=	3

$$\frac{3899}{30} \text{ SQ FT} = 130$$

30 GRAB SAMPLES



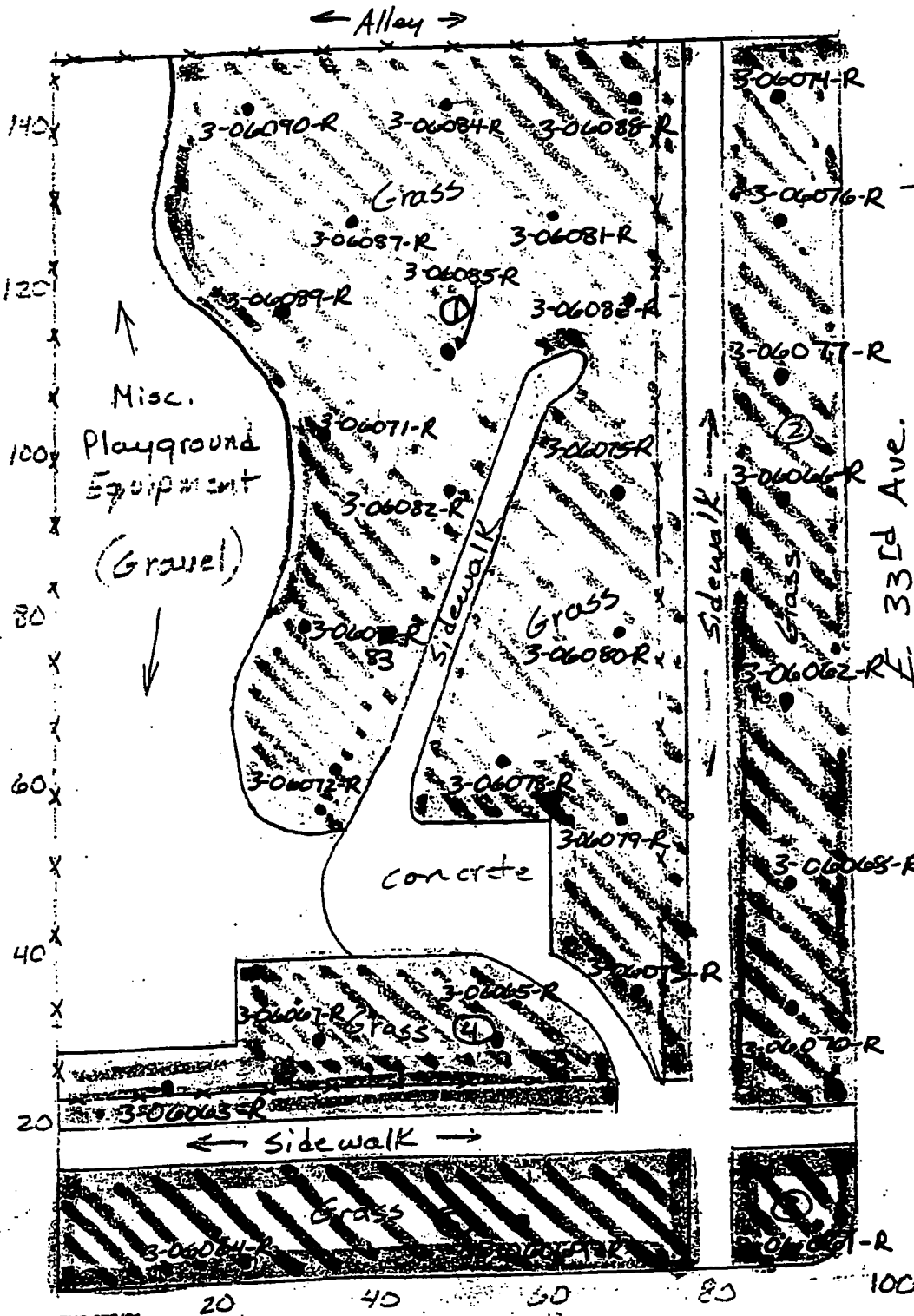
Project I-70 / Highway Blvd.  
 Feature Playground - Family Center Neighborhood  
 Item \_\_\_\_\_

Contract No. 4994  
 Designed RPA  
 Checked \_\_\_\_\_

Sheet \_\_\_\_\_  
 File No. \_\_\_\_\_  
 Date 11-3-99  
 Date \_\_\_\_\_

← N

160



5700  
 2250  
 225  
 1125  
 900  
 10200 SQ FT

30 GRAB SAMPLES

$$\frac{10200}{30} = 340$$

Area #1 = 17  
 Area #2 = 7  
 Area #3 = 1  
 Area #4 = 3  
 Area #5 =  $\frac{2}{30}$

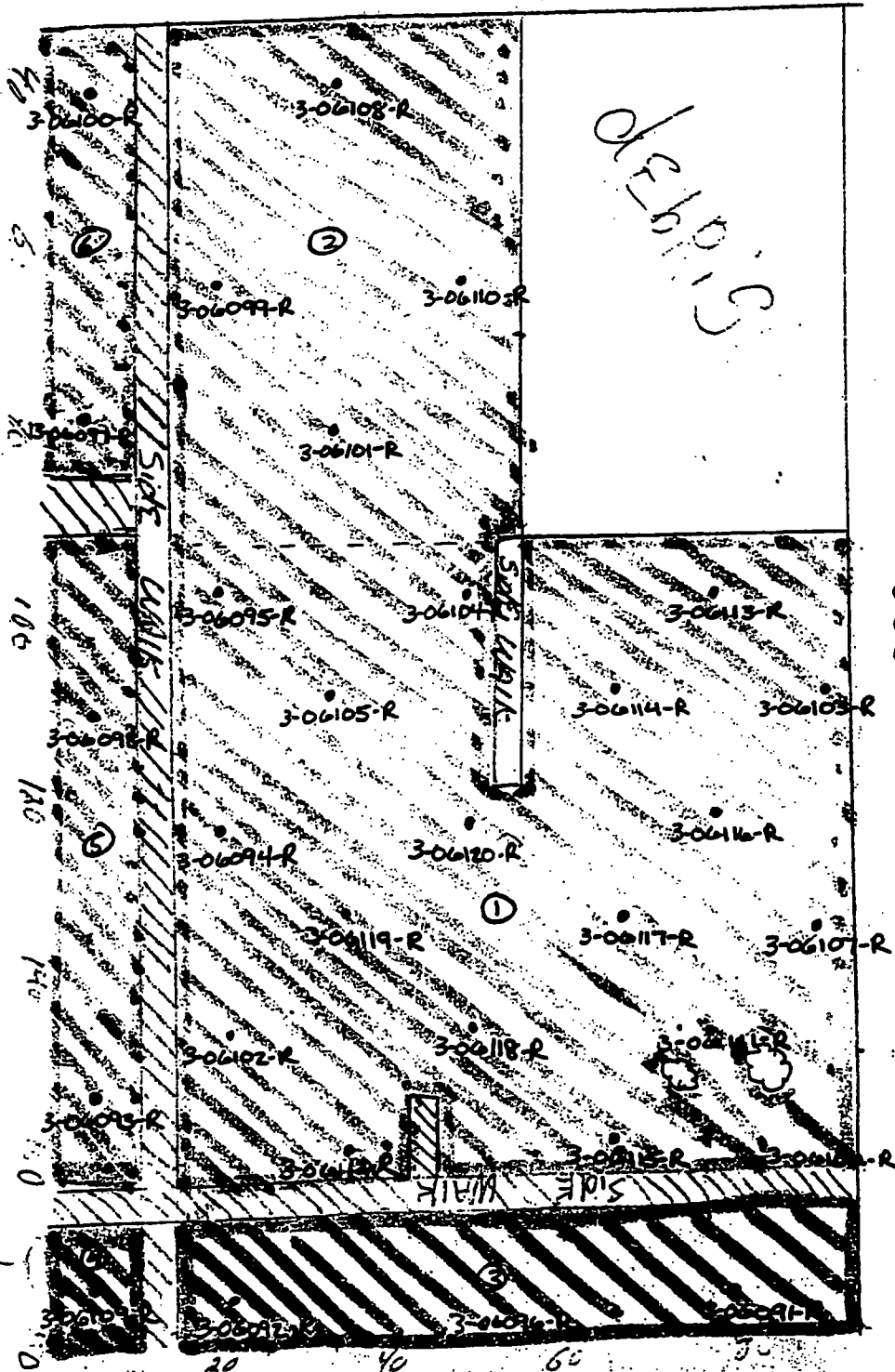
2 SF

Project I 70 / UNDEVELOPED BLVD  
 Feature EMPTY LOT FILL & AIR MATTRESS  
 Item \_\_\_\_\_

Contract No. 4994  
 Designed TJO  
 Checked \_\_\_\_\_  
 Sheet \_\_\_\_\_  
 File No. \_\_\_\_\_  
 Date 11-2-99  
 Date \_\_\_\_\_

ALLEY

debris



- ① 5250 = 18
- ② 1045 = 4
- ③ 980 = 3
- ④ 130 = 1
- ⑤ 700 = 2
- ⑥ 500 = 2

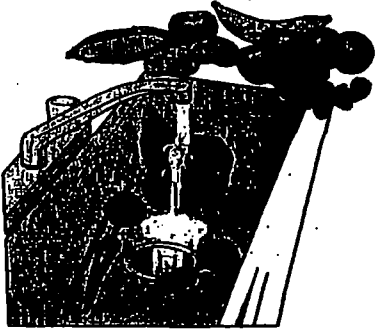
$$\frac{8600 \text{ SQ FT}}{30} = 286.6$$

30 GRAB SAMPLES

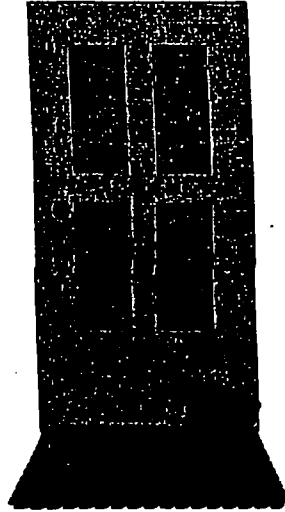
(IF SOIL IS ACCESSIBLE BENEATH DEBRIS)

# Ways to protect your health

## by keeping dirt from getting into your house and into your body



**Wash and peel all fruits, vegetables, and root crops**



**Wipe shoes on doormat or remove shoes**



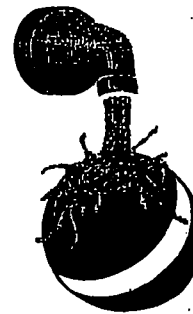
**Don't eat food, chew gum, or smoke when working in the yard**



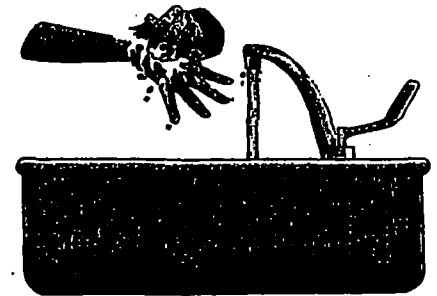
**Damp mop floors and lamp dust counters and furniture regularly**



**Wash dogs regularly**



**Wash children's toys regularly**



**Wash children's hands and feet after they have been playing outside**



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DENVER, CO 80202-2466

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Ref: 8EPR-SR

April 24, 2000

Ms. Nancy Willis  
Family Star Montessori School  
2246 Federal Boulevard  
Denver, CO 80211

RE: Family Star Montessori School

Dear Ms. Willis:

I understand that construction work to build a new facility will soon begin on the property located at 33<sup>rd</sup> Avenue and Humboldt Street and owned by the Family Star Montessori School. As we have discussed, surface soil from this property, currently a vacant lot, was sampled by EPA in 1999. One sample of the 30 collected indicates an elevated concentration of arsenic in surface soil. EPA planned to further characterize this small area this spring and remove soil if necessary.

I am writing to suggest a plan for coordinating EPA's activities at this property and your construction activities. The levels of arsenic and lead found on the property indicate that planned excavations for building foundations and site grading may proceed without concern about unacceptable risks to workers or nearby residents and children. When this work is completed and before landscaping begins, please contact me to arrange for an EPA sampling crew to re-sample the property. The results of this second sampling effort will provide the most relevant information, i.e., the levels of arsenic and lead in the soils that school children will contact in the future. If these results indicate clean up is needed, it will be done by EPA.

I have discussed this course of action with EPA's On Scene Coordinator who will conduct our clean up actions this spring and summer and with the Colorado Department of Public Health and Environment's project manager. We all agree that your construction plans need not be delayed due to concerns about the sampling results.

If you have any questions, please feel free to call me at (303) 312-6579. I look forward to working with you on the re-sampling effort.

Sincerely,

A handwritten signature in black ink, appearing to read "Bonnie Lavelle".

Bonnie Lavelle  
Remedial Project Manager

cc: Barbara O'Grady, CDPHE  
Pete Stevenson, EPA



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